

WCPCG-2010

Relationship between self efficacy and educational psychology course perceptions of pre-service teachers studying at education faculty of NEU

Deniz Özcan^{a,*}, Birikim Özgür^a

^a*Department of Computer Education and Instructional Technologies, Near East University, Lefkosa 98010, Northern Cyprus*

Received January 17, 2010; revised February 6, 2010; accepted March 9, 2010

Abstract

The aim of this study is to determine the relationship between the self efficacy and Educational Psychology course perception of Near East University (NEU) Faculty of Education students. The sample of the study consists of 100 students who successfully completed the course and are currently continuing their education at the Faculty in 4 different departments respectively. Data is collected by “Self Efficacy and Educational Psychology Course” questionnaire consisting of 3 parts which are 1) profile; 2) self efficacy perception; and 3) course perception. Correlation analysis was conducted to determine the relationship between the two variables. The results ($r=0.32$) showed that there is a significant, positive but low relationship.
© 2010 Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Keywords: Self efficacy, course evaluation, educational psychology.

1. Introduction

A number of studies show the impact of teachers with high levels of efficacy. Teaching self-efficacy is the belief that one has the prerequisites to have an effect on student outcomes (Bandura, 1977; Brownell & Pajares, 1999; Buell, 1999; Dembo & Gibson, 1985; Leyser, 2002). Ross (1994) found robust correlations between teacher self-efficacy and use of effective teaching practices which, in turn, are beneficial for students with disabilities (ChesterBeaudin, 1996; Bender & Ukeje, 1989; Gibson & Dembo, 1984; Soodak & Podell, 1993). A teacher's sense of self-efficacy has been consistently recognized as an important attribute of effective teaching and has been positively correlated to teacher and students outcomes (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). While there are many relational studies indicating high self-efficacious teachers usually employ positive teaching behaviors, teaching self-efficacy is not without its critics. Furthermore, studies have shown that teachers with high levels of efficacy have demonstrated different characteristics related to work ethic and pedagogical practice than teachers with low levels of self-efficacy. For example, studies have shown that teachers with high levels of self-efficacy work longer with students that struggle, recognize student errors, and attempt new teaching methods that

* Deniz Özcan. Tel.: +90-392-2236464/110.

E-mail address: denizozcan@hotmail.com.

support students (Gibson & Dembo, 1984; Ashton & Webb, 1986; Guskey, 1988). Czernaik (1990) found that highly efficacious teachers were more likely to use “reform-based” teaching methods, such as inquiry-based and student-centered approaches, while teachers with low levels of self-efficacy used more teacher-directed methods, such as lecturing and textbook reading. Gibson and Dembo (1984) found that teachers who have high teaching self efficacy engage in instructional practices beneficial to students such as giving support and feedback to students and using flexible grouping (Baker, Gersten, Haager, & Dingle, 2005; Stanovich & Jordan, 1998). Teachers with high self-efficacy tend to persist in aiding learners who struggle to keep pace with the general class whereas teachers with low self-efficacy tend to give up on these students (Bender & Ukeje, 1989; Gibson & Dembo). Bandura’s theory of self-efficacy contains two expectancies, self-efficacy and outcome efficacy. Self-efficacy expectation provides individuals a way to decide whether they have the ability to perform the required task at the desired level of competency, while outcome expectancy provides individuals a way to decide if they have accomplished a task at a desired level (Tschannen-Moran, et. al.). The concept of self-efficacy was derived from the theory of social learning proposed by Bandura (Bandura, 1977, 1986). Researchers have used Bandura’s theory in the field of education in order to study teacher self efficacy; and two dimensions of teacher efficacy consistently have been found to be independent measures: personal teaching efficacy and general teaching efficacy, sometimes referred to as outcome efficacy (Woolfolk-Hoy & Burke-Spero, 2005). Personal teacher efficacy is generally defined as a teacher’s belief in his or her skills and abilities to positively impact student achievement, while general (outcome) teaching efficacy has been defined as a teacher’s belief that the educational system can work for all students, regardless of outside influences such as socio-economic. Therefore, teachers’ self-efficacy is seen as an important variable for inclusive education.

Evaluation is the process of providing information for decision making. (Bryk and Light, 1981, p.4). There are two main areas in the literature. These are course evaluation and classroom assessment. Course evaluation is one of two areas of evaluation that has been brought into prominence. It is a very important form of evaluation since it helps to assess whether course objectives are met or not (Hutchinson and Waters, 1987). The other area of evaluation is learner assessment. However, this not sufficient to identify the problem, it can only indicate that a problem exists (Robinson, 1980). There are two main types of evaluation; summative and formative. Information is gathered and used during the curriculum development process while doing formative evaluation (Bryk and Light, 1981). Summative evaluation is a terminal evaluation of a program that is already operational. The aim of summative evaluation is to make adjustments about the program’s value (Jarvis and Adams, 1979). Ramsden mentions 9 premises of evaluation that should be applied in order to bring the purpose of helping lecturers to learn how to teach better rather than the purpose of performance assessment into front (1992). Some of them are stated as ‘evaluation implies finding out how students and others see your teaching and courses’, evaluation is a continuous and continuing process. It should occur before a course, during it and after it’, and evaluation is part of our responsibility as teachers towards our students. We should take the major role. We might ask for assistance from external experts, but we should never let ourselves be dominated by them’. The process of evaluating a course for the sake of improvement is sometimes named as course assessment or classroom assessment. The purpose of classroom assessment is to improve the quality of teaching and learning that takes place in your classroom. In order to investigate the term classroom assessment, the characteristics proposed by Angelo and Cross (1993) should be well examined. Its characteristics are;

- Classroom assessment is learner centered since such a study focuses the primary attention of teachers and students on observing and improving learning, rather than on observing and improving teaching.
- Classroom assessment respects the autonomy, academic freedom and professional judgment of college faculty. Thus, the teacher decides what to assess, how to assess, and how to respond to the information gained through the assessment.
- Active participation of students leads to better grasping the course content and strengthening their own skills at self-assessment. Students’ motivation increases when they realize that faculty are interested and invested in their success as learners. This is why the classroom assessment is known to be a mutually beneficial process.
- Classroom assessment is formative since its purpose is to improve the quality of students learning.
- What works in one class will not necessarily work in another. This is why classroom assessment is context-specific.

- Classroom assessment is an ongoing process, best thought of as the creation and maintenance of a classroom ‘feedback loop’.
- Classroom assessment is an attempt to build on existing good practice of collecting feedback on the students’ learning and using that feedback to inform teaching, by making it more systematic, more flexible and more effective.

1.2. Aim of the study

This study aims to examine the relationship between the self efficacy and Educational Psychology course perception of NEU Faculty of Education students. More specifically the study seeks to answer the following questions:

1. What is the relationship between the self efficacy and Educational Psychology course perception of NEU Faculty of Education students?
2. In what extent, do the characteristics of pre-service teachers studying at NEU affect their perceptions on self efficacy and educational psychology course according to their;

- a) Gender
- b) Department
- c) Grade Level

2. Method

2.1. Sampling

This study has been carried out at Near East University in Nicosia, TRNC. The sampling of the research consisted of 100 teacher candidates studying at NEU. 75 of the participants were female, and 25 of them were male.

2.2. Data Collecting Tools

“Self Efficacy and Educational Psychology Course” questionnaire was used to collect data for this specific study. The questionnaire consists of 3 parts which are 1) profile; 2) self efficacy perception; and 3) course perception. Part one involves items on characteristics of the students; part two was adapted from Teachers’ Sense of Efficacy Scale (TSES) (Tschannen-Moran et al, 1998). This scale is based on the Teachers' Efficacy Scale (TES) developed by Hoy and Woolfolk (1990) and the Teacher Efficacy Scale developed by Gibson and Dembo (1984). Part three was developed by the researchers. The questionnaire was piloted with 30 students and the Cronbach Alpha was calculated as 0.81.

2.3. Data Analysis

The data was analyzed quantitatively, and it was conducted by using SPSS 16.0. Frequency tables, t-test and ANOVA were used to analyze data.

Table 1. Gender

	N	%
Female	75	75.0
Male	25	25.0
Total	100	100.0

There were 25 students from each department in the Faculty of Education which are Computer Education and Instructional Technologies, Turkish Education, English Language Teaching and Classroom Teaching, Classroom Teaching respectively.

Table 2. Department

	N	%
Computer Education and Instructional Technologies	25	25.0
Turkish Education	25	25.0
English Language Teaching	25	25.0
Classroom Teaching	25	25.0
Total	100	100.0

Students in grade 2, 3 and 4 participated in the study. The reason for exclusion of grade 1 students is that the educational psychology course is offered in the second semester of grade 1 which means in order to collect data on the course there was a need to receive data from those students who had already participated in the course.

Table 3. Grade Level

	N	%
Grade 2	40	40.0
Grade 3	10	10.0
Grade 4	50	50.0
Total	100	100.0

3. Findings

3.1. What is the relationship between the self efficacy and Educational Psychology course perception of NEU Faculty of Education students?

Table 4. Correlation between students perceptions on their self efficacy and educational psychology course

Variables	N	Correlation Coefficient	p
Perceptions on self efficacy	100	.318	.001
Perceptions on Educational Psychology Course	100		

The results indicated that there is a significant correlation between the perceptions of students on their self efficacy and their perceptions on educational psychology course ($p < 0.05$). The co-efficient for means of perceptions about self efficacy and Educational Psychology course variables shows .318 which means that there is a low relationship between the two variables.

3.2. In what extent, do the characteristics of pre-service teachers studying at NEU affect self efficacy and educational psychology course perceptions respectively according to their;

3.2.1. Gender – Self Efficacy

Table 5. Perceptions on Self Efficacy According to Students' Gender

Gen.	N	M	SD	df	T	P
F	75	4.14	-1.48	98	-1.18	.241
M	25	4.29				

p>0.05

As it is seen in Table 5, there is no significant difference between female and male students' perceptions on their self efficacy ($p>0.05$). According to this result, Gender of NEU Faculty of Education students do not affect their perceptions on their self efficacy in regard to teaching profession.

3.2.2. Gender – Course Perception

Table 6. Perceptions on Educational Psychology Course According to Students' Gender

Gen.	N	M	SD	df	t	P
F	75	3.5	-0.4	98	-0.286	.776
M	25	3.6				

As it is seen in Table 6, there is no significant difference between female and male students' perceptions on educational psychology course ($p>0.05$). According to this result, gender of NEU Faculty of Education students does not affect their perceptions on educational psychology course.

3.2.3. Department

Table 7. Perceptions on Self Efficacy According to Students' Department

Department	N	M	SD	F	P
Computer Education and Inst. Tech.	25	3.74	.25	9.85	.00
Turkish Education	25	4.24	.47		
English Language Teaching	25	4.45	.64		
Classroom Teaching	25	4.3	.49		

As it is seen in table 7, according to departments of NEU Faculty of Education students, there is a significant difference between perceptions of Computer Education and Instructional Technology Department, Turkish Education Department, English Language Teaching Department and Classroom Teaching Department on their self efficacy ($p<0.5$). It can be said that students in ELT has higher mean of perception in regard to their self efficacy. Also it is seen that the mean of students in the department of Classroom Teaching is high.

Table 8. Perceptions on Educational Psychology Course According to Students' Department

Department	N	M	SD	F	P
Computer Education and Inst. Tech.	25	3.41	.43	3.19	.027
Turkish Education	25	3.48	.77		
English Language Teaching	25	3.87	.39		
Classroom Teaching	25	3.47	.66		

As it is seen in Table 8, according to departments of NEU Faculty of Education students, there is a significant difference between perceptions of Computer Education and Instructional Technology Department, Turkish Education Department, English Language Teaching Department and Classroom Teaching Department on educational psychology course ($p<0.5$). It can be said that students in ELT has higher mean of perception in regard to educational psychology course. Also it is seen that the mean of students in the department of Turkish Education is high.

3.2.4. Grade Level

Table 9. Perceptions on Self Efficacy According to Students' Grade Level

Department	N	M	SD	F	P	
2	40	3.74	.25	4.5	.014	P<0.05
3	10	4.24	.47			
4	50	4.45	.64			

As it is seen in Table 9, according to grade levels of NEU Faculty of Education students, there is a significant difference between perceptions of students in grade levels two, three and four on their self efficacy ($p<0.5$). It can be said that students in grade 4 has higher mean of perception in regard to their self efficacy. Also it is seen that the mean of students in grade 3 is higher when compared with perceptions of 1th grade students.

Table 10. Perceptions on Educational Psychology Course According to Students' Grade Level

Department	F	P	
2	1.9	.156	P>0.05
3			
4			

As it is seen in Table 10, according to grade levels of NEU Faculty of Education students, there is no significant difference between perceptions of grade levels 2, 3 and 4 on educational psychology course ($p>0.5$).

4. Conclusion

Self-efficacy beliefs have received increasing attention in educational research, primarily in studies of academic motivation and of self-regulation (Pintrich & Schunk, 1995). In this arena, self-efficacy researchers have focused on three areas. Researchers in the first area have explored the link between efficacy beliefs and college major and career choices, particularly in science and mathematics. This line of inquiry has important implications for counseling and vocational psychology theory and practice, given that findings have provided insights into the career development of young men and women and can be used to develop career intervention strategies. Findings from the second area suggest that the efficacy beliefs of teachers are related to their instructional practices and to various student outcomes (Ashton & Webb, 1986). In the third area, researchers have reported that students' self efficacy beliefs are correlated with other motivation constructs and with students' academic performances and achievement. Constructs in these studies have included attributions, goal setting, modeling, problem solving, test and domain-specific anxiety, reward contingencies, self-regulation, social comparisons, strategy training, other self-beliefs and expectancy constructs, and varied academic performances across domains.

This study is therefore mainly focused on not only determining the relationship between the self efficacy and educational psychology course perceptions of NEU Faculty of Education students but also the extent to which certain characteristics such as gender, department and grade level affect their perceptions on self efficacy and educational psychology course respectively. Eventually, although the study is limited to the Faculty of Education of a certain university, the results may yield to open a gate for research on influence of introducing certain information on learning and developmental issues as part of educational psychology course to students on their self-efficacy as pre-service teachers.

When we consider each of the characteristics mentioned above, the results obtained are in parallel with the information retrieved from the literature. As cited by Eisenberg, Martin and Fabes (1996), the relationship between gender and self-efficacy has not been explored as thoroughly as that between gender and academic performances and, whereas recent findings suggest that gender differences in student achievement are either diminishing or practically nonexistent. In parallel to this, we determined that within our context either, gender has no effect on self efficacy of pre-service teachers. This also goes to their perceptions on the course itself.

On the other hand, we determined that there is significant difference between perceptions of students from different departments. According to this, students of department of ELT have the highest mean and the students of department of CEIT have the lowest mean. Although there is not enough evidences to claim, this may have its roots in the fact that CEIT students focus more on developing their technical skills in the field of computer and focus less on developing their teaching skills although there are same number of educational courses in the programs of both departments. In addition to this, it's a fact that background of students who are studying in the department of ELT is richer in terms of their social skills which play significant role in developing self efficacy in teaching profession. This has its roots in the university entrance system that allows students who have more mathematical skills to get enrolled in the department of CEIT and students who have more social skills to get enrolled to other departments in the Faculty of Education. Similar to their self efficacy perceptions, there is again a significant difference between their perceptions on educational psychology course. Based on the correlation between self efficacy and the course, it can be concluded that those students who obtained higher mean on course perception also has higher self efficacy means. So, the students in department of ELT have a better perception of the course and eventually higher self efficacy mean. On the other hand, as expected, students in department of CEIT have the lowest mean score on their perceptions of the course.

Interestingly, although there is a significant difference in self efficacy scores of students from different grade levels, this does not necessarily be the case for the course. In other words, the perceptions of students on the course do not change according to their grade levels but as they go upper classes, they feel more confident in regard to their efficiency in teaching profession.

5. Recommendations

The clear implication that emerges from this study is that researchers and Faculty of Education academic staff should not only look to students' self-beliefs about their academic capabilities, for they are important components of motivation, self-regulation, and academic achievement but also focus more on doing action research to determine the extent to which their students can develop relevancies between the content of educational courses similar to educational psychology course and their professional development as pre-service teachers. Findings from this line of inquiry should continue to provide a powerful contribution to educational practice, policy and theory.

References

- Angelo, T. A., and Cross, K.P. (1993). *Classroom Assessment Techniques: A handbook for college teachers*. San Francisco: Jossey-Bass.
- Ashton, P. T., & Webb, R. B. (1986). *Making a difference: Teachers' sense of efficacy and student achievement*. New York: Longman.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Bryk, A.S. & Light, R.J. (1981). *Designing Evaluations*. In R.A. Berk (Ed.). *Educational Evaluation: The state of the art*. London: Johns Hopkins University Press.-Berk, R.A. (1981) Introduction
- Czernaik, C. M. (1990). A study of self-efficacy, anxiety, and science knowledge in preservice elementary teachers. Paper presented at the National Association for Research in Science Teaching, Atlanta, GA.
- Eisenberg, N, Martin, C. L., & Fabes, R. A. (1996). Gender development and gender effects. In D. C. Berliner & R. C. Calfee (Eds.). *Handbook of educational psychology* (pp. 358-396). New York: Simon & Schuster Macmillan.
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 503-511.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569-592.
- Guskey, T. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 4(1), 63-69.
- Hoy, W. K., & Woolfolk, A. E. (1990). Socialization of student teachers. *American Educational Research Journal*, 27(2), 279-300.
- Hutchinson, T. & Waters, A. (1987) *English For Specific Purposes: A Learning Centred Approach*. Cambridge: Cambridge University Press.
- Pintrich, P. R., & Schunk, D. H. (1995). *Motivation in education: Theory, research, and applications*. Englewood Cliffs, NJ: Prentice Hall.
- Ramsden, P. (1992). *Learning to teach in higher education*, London: Routledge
- Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805
- Woolfolk-Hoy, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356.